

CLAIMS

1. A method of network control, comprising:
collecting real-time operation information on one or more first network elements of a
5 network;

selecting a policy to be implemented by at least one second network element, different from the first network element, responsive to the collected real time information from the one or more first network elements, the at least one second element including an end-point element of the network; and

10 enforcing the selected policy on an agent hosted by the at least one second network element.

2. A method according to claim 1, wherein collecting real-time operation information comprises collecting information on operation problems.

15 3. A method according to claim 2, wherein collecting real-time operation information comprises collecting information on applications that do not operate or operate slowly.

4. A method according to claim 2, wherein collecting real-time operation information
20 comprises collecting information on system or application crashes.

5. A method according to claim 1, wherein collecting real-time operation information comprises collecting information on software applications installed or running on the network elements.

25 6. A method according to claim 1, wherein collecting real-time operation information comprises collecting information on the communications between elements of the network.

30 7. A method according to claim 1, wherein selecting the policy to be implemented comprises selecting a policy relating to a software to be installed on the second network element.

8. A method according to claim 1, wherein selecting the policy to be implemented comprises selecting a policy relating to a software to be uninstalled from the second network element.

5 9. A method according to claim 1, wherein selecting the policy to be implemented comprises selecting a policy relating to preventing installation of a software on the second network element.

10 10. A method according to any of claims 7-9, wherein selecting the policy to be implemented comprises selecting responsive to a determination that a group of network elements having a common problem have installed thereon a specific software application or combination of software applications.

15 11. A method according to claim 1, wherein selecting the policy to be implemented comprises selecting a policy relating to allocation of network resources.

12. A method according to claim 1, wherein the policy is selected within less than 60 minutes from the collecting of the information.

20 13. A method according to claim 1, wherein collecting the operation information is performed repeatedly.

14. A policy controller, comprising

an input interface;

25 an output interface; and

a processor adapted to receive through the input interface real-time operation information on one or more first network elements of a network, to select a policy to be implemented by at least one second network element, different from the first network element,

responsive to the collected real time information from the one or more first network elements,

30 the at least one second element including an end-point element of the network and to transmit instructions on the selected policy to be enforced to an agent hosted by the at least one second network element, through the output interface.

15. A policy controller according to claim 14, wherein the processor is adapted to select the policy to be implemented by the at least one second network element responsive to operation information collected from at least 2 first network elements.

5 16. A policy controller according to claim 15, wherein the processor is adapted to select the policy to be implemented by the at least one second network element responsive to operation information collected from at least 10 first network elements.

17. A network management system, comprising:

10 an input interface;

an output interface; and

a processor adapted to collect attribute values from a plurality of network elements of a network through the input interface, to find groups of network elements having similar attribute values for a plurality of attributes and to transmit a policy selected responsive to the groups, through the output interface.

15 18. A system according to claim 17, wherein the processor is adapted to find, for a group of network elements having a problem, a combination of attribute values that correlate with the problem to at least a predetermined degree.

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19. A system according to claim 17, wherein the processor is adapted to find, for a group of network elements having a problem, a combination of attribute values that appears only on the network elements having the problem.

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20. A system according to claim 17, wherein the processor is adapted to collect for at least one network element, a plurality of snapshot records of the network element at different times.

21. A system according to claim 17, wherein the processor is adapted to verify that each network element belongs to the network before collecting information from the network element.

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22. A system according to claim 17, wherein the processor is adapted to find groups using a k-clustering or hierarchy clustering method.

23. A method of network control, comprising:
- collecting attribute values from a plurality of computers having a problem;
- collecting attribute values from a plurality of computers not having the problem; and
- determining attribute values associated with the problem, responsive to the collected attribute values.
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24. A method according to claim 23, wherein determining the attribute values comprises determining using a neural network.
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25. A method according to claim 23, wherein determining the attribute values comprises determining using k-clustering or hierarchy clustering.